



PROJECT MANAGER
FIREFINDER
U.S. ARMY ELECTRONICS RESEARCH
AND DEVELOPMENT COMMAND
FORT MONMOUTH, NEW JERSEY 07703

GROUND SYSTEMS GROUP

MAINTENANCE BULLETIN

COMMON SHELTER		FILE NO. 132-A	REVISION:
SUBJECT: DUAL CHANNEL CONTROL CARD OPERATIONAL PROBLEMS		DATE: 3/14/90	CATEGORY: A
		SYSTEMS AFFECTED: ALL	

1. REFERENCES:

a. Page 1-13 TM 11-5840-354-20-1 Organizational Maintenance Manual for Radar Set AN/TPQ-36.

b. Page 1-12.1 TM 11-5840-355-20-1 Organizational Maintenance Manual for Radar Set AN/TPQ-37.

c. Page 1-13 TM 11-5840-376-20-1 Organizational Maintenance Manual for Radar Set AN/TPQ-36(V).

d. Page 1-13 TM 11-5840-377-20-1 Organizational Maintenance Manual for Radar Set AN/TPQ-37(V) 4.

e. Pages 1-419 thru 1-427 and Chapter 2, Wiring Lists, TM 11-5840-364-30-2 Direct Support Maintenance Manual (Schematics and Wire Lists), Operations Control Group (Shelters).

f. AN/TPQ-36 Modification Work Order 11-5840-354-50-1.

g. AN/TPQ-37 Modification Work Order 11-5840-355-50-3.

2. PROBLEM: Intermittent malfunctions have been detected when the Common Shelter was submitted to testing at both ambient and extreme temperatures in the Environmental Chamber. These problems were traced to microcircuit 54LS257 on the Dual Channel Control Card (Part Number 1642189-100). Further analysis disclosed that two versions of this microcircuit have been furnished by the manufacturers under the same part number. Earlier versions are characterized as "slow" components, while later versions are "fast" components. When a "fast" component is used in the Dual Channel Control Card, changes are required in the Signal Processor backplane wiring.

APPROVED BY CHIEF LMD:

Jh Wonella

PMFF

DATE:

8/9/90

3. SOLUTION:

a. A new part number (1708261-100) has been established for the Dual Channel Control Card to identify those cards containing the newer "fast" version of the microcircuit. (See enclosed figure 1 for location of microcircuits U1, U2, U5, U7, U11, and U17 on the Dual Channel Control Card.)

b. A new Signal Processor Rack part number (1635898-101) has been established for the new backplane configuration to identify the ones which contain the wiring modifications compatible with the new CCA (1708261-100). This new Signal Processor is compatible with existing 1642189-100 cards and the new 1708261-100 cards.

c. Signal Processor without the backplane wire changes (part number 1635898-100) must use the 1642189-100 CCAs with the "slow" microcircuit.

4. MODIFICATIONS: The modifications referred to in paragraphs 1f and 1g above are scheduled for installation to fielded radars not later than March 1992.

5. APPLICABILITY: The provisions of this bulletin applies to:

a. U. S. Army, U. S. Marine Corps, and U. S. Army National Guard tactical organizations.

b. Foreign Military tactical organizations.

6. DOCUMENTATION: All applicable documentation will be updated to reflect above changes during the next submittal.

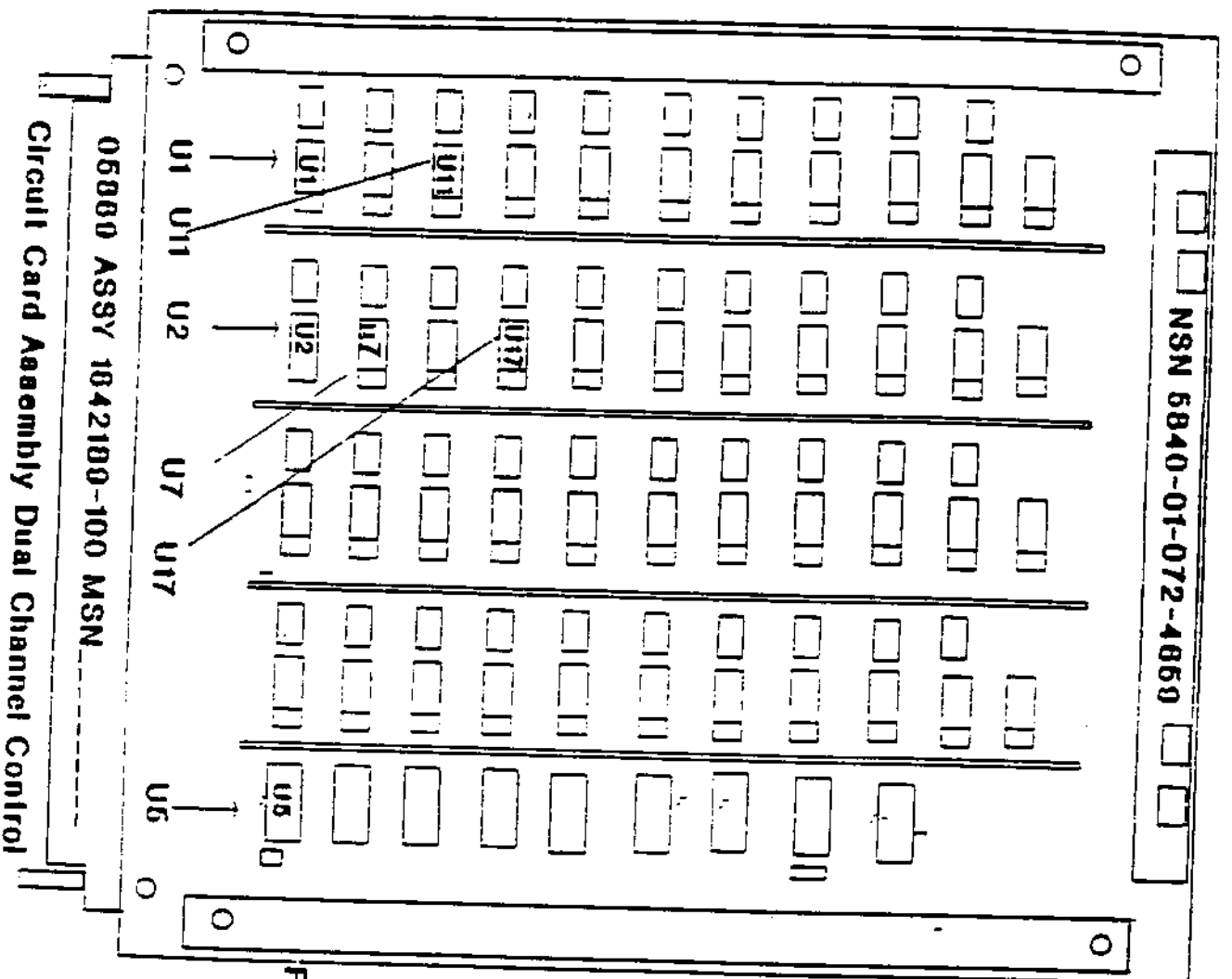


FIGURE 1

NOTE: SEE
 TM11-6840-384-34P
 DATED 31 MAR 1989
 FIG. 127 PAGE 127.0
 FOR ADDITIONAL ORIENTATION